

The Voice of the Theatre

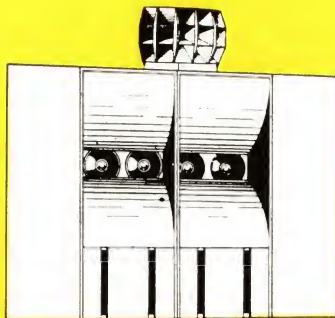
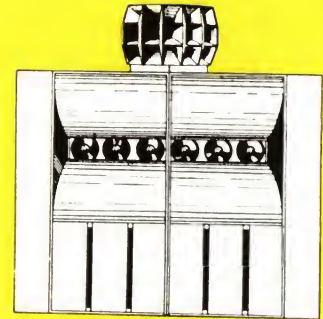


ALTEC
LANSING CORPORATION

The Voice of the

★ LIVE, NATURAL SCREEN PRESENCE

The natural screen presence of The Voice of the Theatre brings to your screen living, breathing characters . . . sound effects that are natural . . . music that is authentic in reproduction.

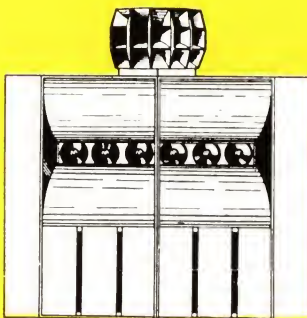
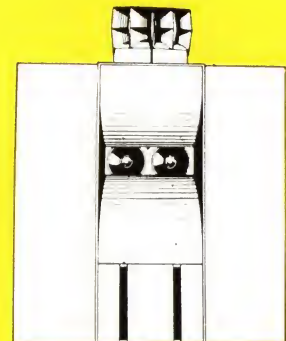


★ HIGH INTELLIGIBILITY FOR EASY COMFORTABLE LISTENING PLEASURE

Every seat in your house is equally reached by the wide frequency range of The Voice of the Theatre, assuring high intelligibility and easy comfortable listening for every one of your patrons. They enjoy your show free of strain . . . free of irritation . . . and leave your theatre rested, relaxed and satisfied.

★ PERFECT BALANCE FOR PREMIER PRESENTATIONS

The Voice of the Theatre brings you a new value in properly balanced proportions of high and low frequencies throughout your entire show. Voices, music and sound effects flow out into your audience in exact relation to each other . . . just as they are planned and recorded when produced at the studio.



★ A TRUE BASS REPRODUCTION

For the first time in history, The Voice of the Theatre has overcome the barriers of reproducing bass. By spreading out the range of bass frequencies, true character and definition is given to the varying values of voices, instruments and sound effects that require proper reproduction in the lower frequencies.

THE ALTEC LANSING SPEAKER . . . *The Voice of the Theatre*

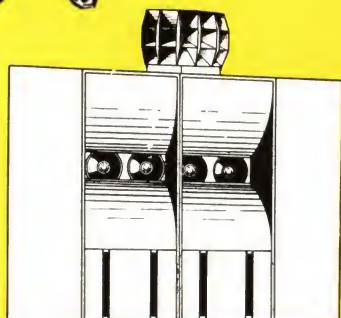
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ADAPTABLE FOR IMPROVEMENTS TO EXISTING SYSTEMS

Theatre brings...



...YOUR PATRONS New LISTENING PLEASURE

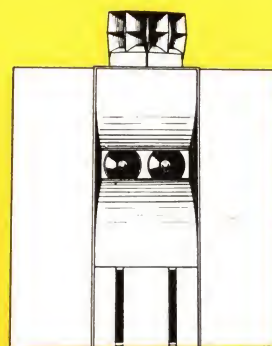
★ SOUND EFFECT REALISM



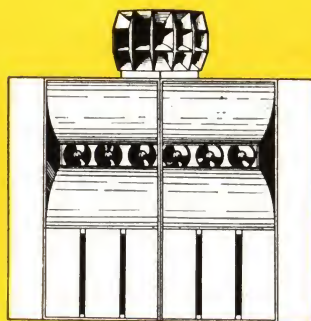
From the whisper of wind in the tree tops... to the thunderous, grinding roar of an earthquake... each sound effect, individually and collectively, is presented to your patrons with the realism of life itself. The Voice of the Theatre presents the reproduction of sound effects as loud or soft... as high or low... as sharp or dull... as irritating or soothing as they actually sound in every day life.

★ NO BACKSTAGE REVERBERATION OR HANGOVER

The Voice of the Theatre projects all available sound energy into your auditorium perfectly proportioned, and free of backstage reverberation or hangover. Because of airtight, back wall construction the presentation of your program is clear, true and evenly distributed throughout every seat of your house. An exclusive construction feature completely eliminates rear radiation of sound waves.



★ EXCLUSIVE FEATURES OF DESIGN



A short straight air column increases presence... exclusive vertical ports utilize all available sound energy... rigid construction perfects vibration-proof, absorption-resistant horn walls. These are a few more of the many Features of the Future you enjoy with your Voice of the Theatre.

THE ALTEC LANSING SPEAKER... *The Voice of the Theatre*

ADAPTABLE FOR IMPROVEMENTS TO EXISTING SYSTEMS
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DELUXE PRESENTATION

AND HOW IT BENEFITS YOU!

TO PROVIDE vital living sound entertainment; to recreate the tenseness of drama, the natural realism of dialogue, the thrill of full fortissimo, the crash of angry thunder, the faint rustle of leaves, the excited whisper and yet throughout, assure every patron comfortable listening pleasure; This is DELUXE PRESENTATION.

DELUXE PRESENTATION requires that your loudspeaker system have excellent performance as to:

- ★ **EFFICIENCY**
- ★ **POWER CAPACITY**
- ★ **FREQUENCY RANGE**
- ★ **DISTRIBUTION**
- ★ **CORRECT PHYSICAL PROPORTIONS**

The unequalled mechanical sensitivity of the *Voice of the Theatre* to utilize efficiently the power supplied by the amplifiers enhances dramatic effects of the full orchestra and vocal climax. *The Voice of the Theatre* loudspeaker systems have proven on test to be at least one hundred per cent more efficient than those now in use.

The loudspeaker system must have high power capacity to stand up and give out with the thrill of full fortissimo. Recording studios are now extending the dynamic range of recording, and these developments will place new demands on the power delivered by your loudspeaker system. Choice of the proper *Voice of the Theatre* as indicated on page 14, will provide for the POWER CAPACITY and reserve necessary for DELUXE PRESENTATION.

DELUXE PRESENTATION of dialogue requires that the loudspeaker system have a broad FREQUENCY RANGE—with the voice overtones

properly BALANCED against the fundamentals, with all frequencies handled smoothly and without improper emphasis of some and absence of others. DELUXE PRESENTATION of music requires still broader FREQUENCY RANGE, from deep bass to the highest overtones, and BALANCE assumes added importance.

DELUXE PRESENTATION requires that the loudspeaker system have uniform DISTRIBUTION to carry the full frequency range to all seats. Seats with poor sound coverage should now be considered a thing of the past. *Voice of the Theatre* models are available to provide excellent DISTRIBUTION for any theatre.

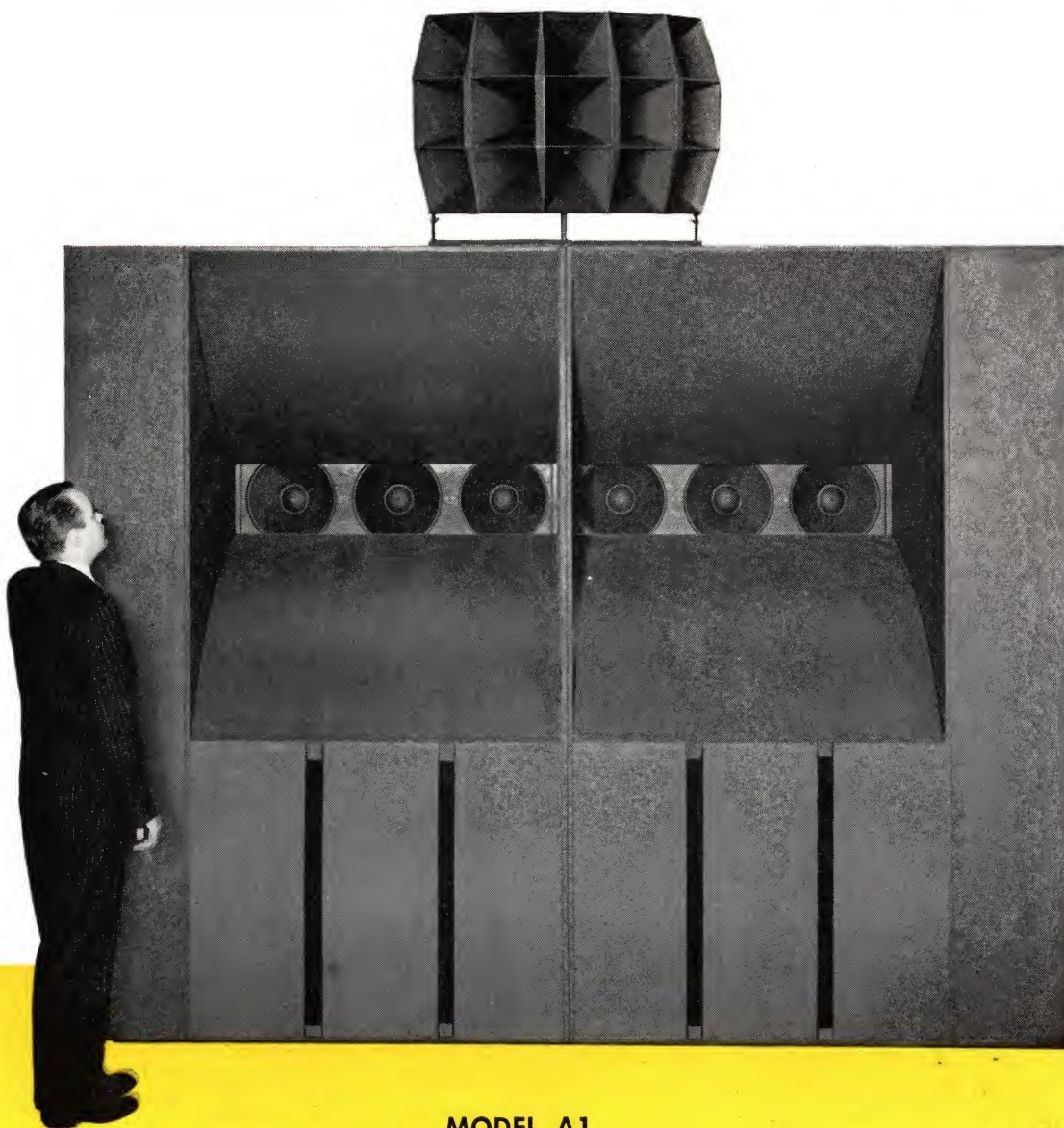
The loudspeaker system must have the CORRECT PHYSICAL PROPORTIONS to meet the dimensional, acoustical and architectural characteristics, as well as the seating arrangements of the individual theatre. Theatre tests prove that a loudspeaker system suitable for DELUXE PRESENTATION in a 600 seat house fails to provide top performance at 800 seats, delivers poor performance at 1200 seats, and is wholly inadequate for 2000 seats. To secure DELUXE PRESENTATION in theatres of all sizes and types, a large number of combinations of horns, high frequency speakers and low frequency speakers must be available. *The Voice of the Theatre* provides many combinations and may be virtually tailored to any theatre.

The proper *Voice of the Theatre* loudspeaker system will bring DELUXE PRESENTATIONS to your theatre through the scientific application of all of these principles.

To select the proper *Voice of the Theatre* for
DELUXE PRESENTATION in your theatre—
see Page 14

THE ALTEC LANSING SPEAKER . . . *The Voice of the Theatre*

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MODEL A1

FOR DELUXE PRESENTATIONS IN LARGE THEATRES

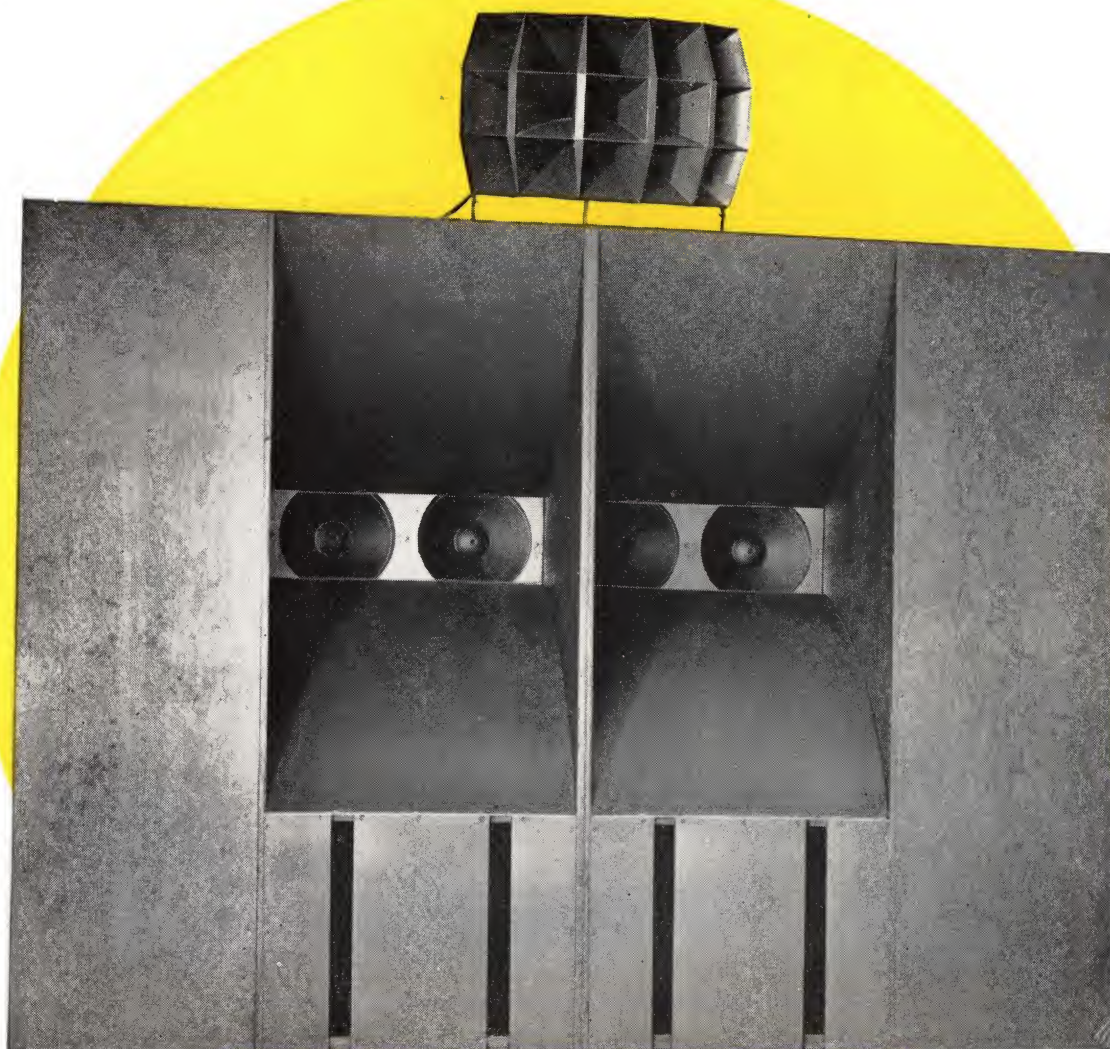
Model A1, Voice of the Theatre, provides deluxe presentations in large theatres. The six low frequency speakers provide an extended bass reproduction and permit 100% utilization of the complete frequency range as recorded on the sound track. Two high frequency speakers feed into a multi-cellular high frequency horn, which in turn distributes high quality sound evenly throughout the auditorium. A selected size of high frequency horn is used with this system, depending upon the architectural design and acoustical characteristics of the theatre.

MODEL A1-X

Model A1-X, Voice of the Theatre, is exactly the same as Model A1, except that a special high frequency horn and adaptors are provided so that four high frequency speakers can be used with the properly selected multi-cellular horn.

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MODEL A2

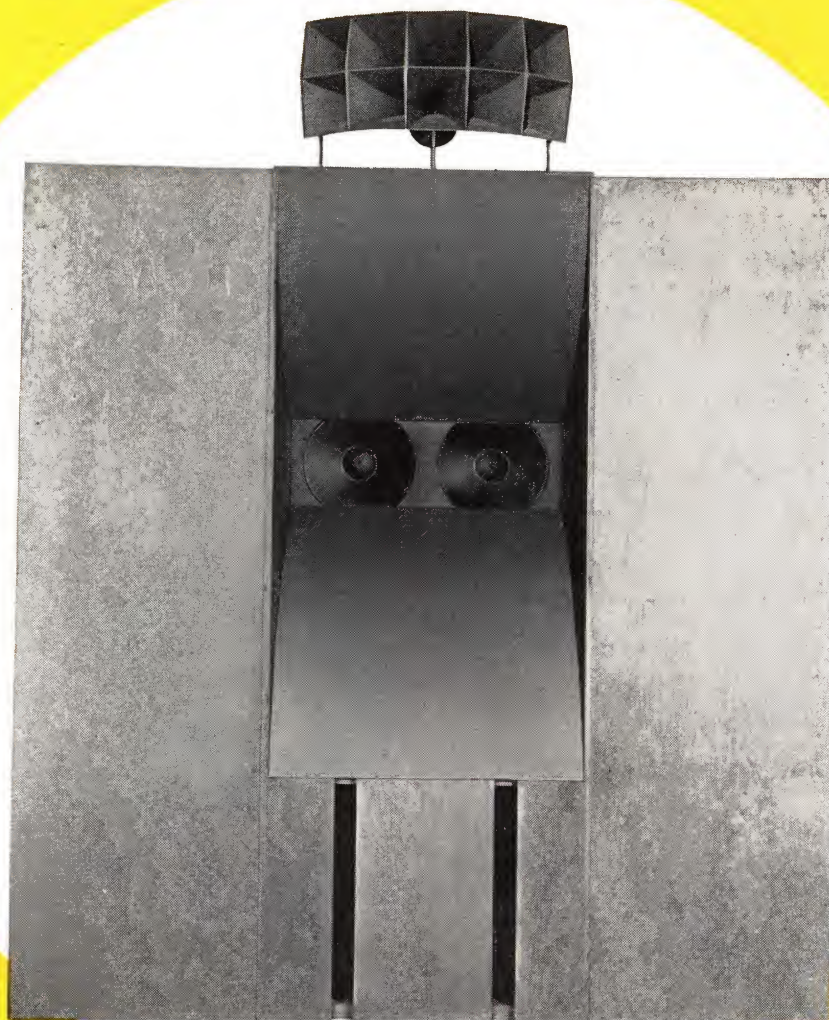
FOR DELUXE PRESENTATIONS IN THEATRES OF NOT MORE THAN 2800 SEATS

MODEL A2, Voice of the Theatre, has been designed to provide deluxe presentations in theatres whose seating capacity does not exceed 2800 seats. Four low frequency speakers provide an extended bass reproduction and permit 100% utilization of the complete frequency range as recorded on the sound track. Two high frequency speakers feed into a selected type of multi-cellular horn providing even distribution of high quality sound throughout the auditorium. The high frequency multi-cellular horn selected will depend upon architectural design and acoustical characteristics of your theatre.

MODEL A2-X, Voice of the Theatre, is exactly the same as Model A2, except that a special high frequency horn and adaptors are provided so that four high frequency speakers can be used with the properly selected multi-cellular horn.

T H E A L T E C L A N S I N G S P E A K E R . . . *The Voice of the Theatre*

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MODEL A4

FOR DELUXE PRESENTATIONS IN THEATRES OF NOT MORE THAN 1200 SEATS

MODEL A4, Voice of the Theatre, provides deluxe presentations in theatres whose seating capacity does not exceed 1200 seats. A medium size speaker for medium size houses, the two low frequency speakers of the Model A4 provide extended, true bass reproductions and permit 100% utilization of the complete frequency range as recorded on the sound track. The high frequency speaker also delivers the same high quality sound as other models. To provide perfect distribution of high quality sound throughout the auditorium, selection of the high frequency multi-cellular horn will depend on individual architectural and acoustical characteristics of your theatre.

MODEL A4-X, Voice of the Theatre, is exactly the same as Model A4, except that a special high frequency horn and adaptors are provided so that two high frequency speakers can be used with the properly selected multi-cellular horn.

T H E A L T E C L A N S I N G S P E A K E R . . . *The Voice of the Theatre*

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FOR DELUXE PRESENTATIONS—THEATRES OF NOT MORE THAN 750 SEATS

Model A5, Voice of the Theatre, permits the exhibitor, whose theatre seating capacity does not exceed 750 seats, to keep pace with his bigger competitors. For although Model A5 is a smaller size loudspeaker, it provides comparable high quality performance with the larger models. Model A5 has one low frequency speaker of the same type used in the larger models. The same high frequency speaker and high frequency multicellular horn as used in the larger models assures 100% distribution of high quality sound.



MODEL A5



MODEL A6

FOR QUALITY PRESENTATIONS—UNUSUALLY SMALL THEATRES AND REVIEW ROOMS

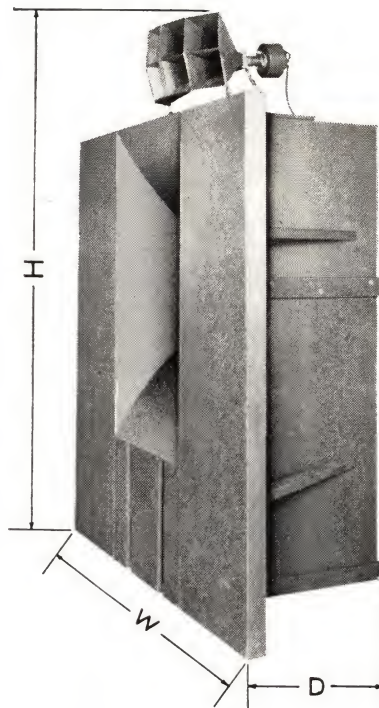
Model A6, Voice of the Theatre, (as illustrated) presents the perfections that have been achieved in advanced methods of sound reproduction. By combining both high and low frequency speakers in a small compact model with a special network, all the Features of the Future are enjoyed in quality presentation. Model A6 is a special Voice of the Theatre Loudspeaker and is recommended for unusually small theatres and review rooms.

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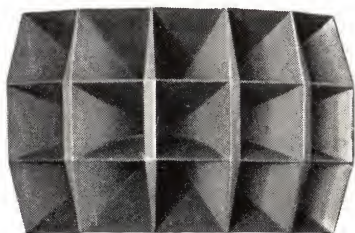
LOW FREQUENCY HORN FEATURES

The low frequency horns of The Voice of the Theatre bring you great improvement in low frequency sound reproduction. Based on years of sound experimentation and scientific research, they have been designed and perfected by the nation's top flight sound engineers. They are unique in design, rigid in construction and perfect in performance. An airtight, fully enclosed rear section eliminates back stage reverberation and hangover . . . a short straight air column increases presence . . . exclusive vertical ports utilize all available sound energy . . . rigid construction perfects vibration-proof horn walls. These are a few more of the many Features of the Future you enjoy with your Voice of the Theatre.



Dimensions of complete speakers shown in chart on page fifteen.

HIGH FREQUENCY MULTI-CELLULAR HORN FEATURES



High frequency true exponential multi-cellular horns of the Voice of the Theatre also bring you designs and perfections by the nation's top flight sound engineers. The high frequency horns are exact in design, rigid in construction and perfect in performance. A large selection of cell sizes and configurations provides perfect high quality sound reproduction and distribution in accordance with the individual architectural and acoustical requirements of each theatre.

N - 500 - C DIVIDING NETWORK



To guarantee perfect practical performance of The Voice of the Theatre Loudspeaker, parallel type, constant resistance dividing networks are provided with each system. Cross over point is at 500 cycles.

Provision is made for 4 steps (1db each) of attenuation in the high frequency output. This is accomplished by changing the shorting strip held down by three screws. Input impedance of the unit is 12 ohms.

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LOW FREQUENCY SPEAKER FEATURES

**MORE EFFICIENT • MORE DEPENDABLE
COOLER OPERATING • SELF ENERGIZED
MORE RIGIDITY • GREATER DRIVING POWER**

For those who are technically and engineeringly minded, here are the exclusive low frequency speaker features which help make The Voice of the Theatre a great advancement in sound reproduction history. An important feature is the new design of the low frequency speaker which fully utilizes all of the advantages of the new wartime perfected Alnico 5 type permanent magnet. A compact, self energized speaker, its highly concentrated energy permits higher efficiencies than ever before thought possible with a permanent magnet. Design and use of this new type permanent magnet also perfects a speaker which is hum free in operation. It also provides cooler operating temperatures because of its elimination of separate field supplies.

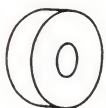
Equally important is the exclusive feature of edgewise wound copper ribbon wire used in perfecting the large 3" voice coil. Ribbon wire permits the utilization of considerably more conductor material in the air gap greatly increasing efficiencies and decreasing operating temperatures. The diameter of the edgewise wound... copper ribbon voice

coil has been enlarged permitting utilization of higher power with less distortion.

Another feature of the low frequency speaker is the highly efficient dome-inserted, moisture resistant, seamless molded cone with effective driving area of 123 sq. in. Cone and voice coil assembly are permanently aligned in a 15" die cast frame and clamping ring. Impedance of the speaker is approximately 20 ohms under normal operating conditions.



LOW FREQUENCY SPEAKER FEATURES AT A GLANCE



PERMANENT MAGNET

Alnico 5 permanent magnet, increases efficiency, lowers operating temperatures and eliminates need for field supplies.



DIE CAST FRAME

Improved 15" die cast frame assures perfect alignment of cone and voice coil assembly. For quick repair and replacement.



RIBBON WIRE

Edgewise wound copper ribbon voice coil permits the utilization of considerably more conductor material in air gap.



SEAMLESS CONE

New type dome inserted, moisture resistant, seamless molded cone with effective driving area of 123 square inches.



CLAMPING RING

Perfecting clamping ring fastens outer rim of cone to frame. Inner spider assembly held down by screws. Simplifies removal.

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HIGH FREQUENCY SPEAKER FEATURES

**SELF ENERGIZED • TANGENTIAL COMPLIANCE
GREATER DRIVING POWER • MORE EFFICIENT
MORE DEPENDABLE • COOLER OPERATING**

Perhaps the most important feature of the new high frequency speaker of The Voice of the Theatre is a design which fully utilizes all of the advantages of the new wartime perfected Alnico 5 type permanent magnet. The exclusive design of the new speaker in combination with the new type permanent magnet permits higher efficiencies at one-third the size and weight of material required for all other type magnets. It also provides a compact self-energized speaker which eliminates the need of separate field supplies.



Equally important is the feature of edgewise wound, aluminum ribbon wire in perfecting the voice coil. This new type aluminum ribbon wire, treated with a temperature resistant varnish, greatly increases the efficiency by providing more conductor material in the magnetic circuit.

Another exclusive feature is the near perfect piston like action of the metal diaphragm which increases the transmission speed of sound several times faster and is more sensitive than that of paper or fibrous

materials. The tangential compliance of the hydraulically drawn diaphragm also increases the safety factor and sound reproduction abilities three times greater than ordinary annular compliant type diaphragms. The complete voice coil and diaphragm assembly is mounted in a cast bakelite ring. Dowel pins assure perfect alignment. Impedance of the speaker is approximately 24 ohms over a wide frequency range when operating under normal conditions.

HIGH FREQUENCY REPLACEABLE DIAPHRAGM



The high frequency replaceable diaphragm unit of The Voice of the Theatre, with hydraulically drawn aluminum diaphragm and tangential compliance, ribbon wire, bakelite frame and holes for dowel pin mounting is illustrated at left ready for installation.

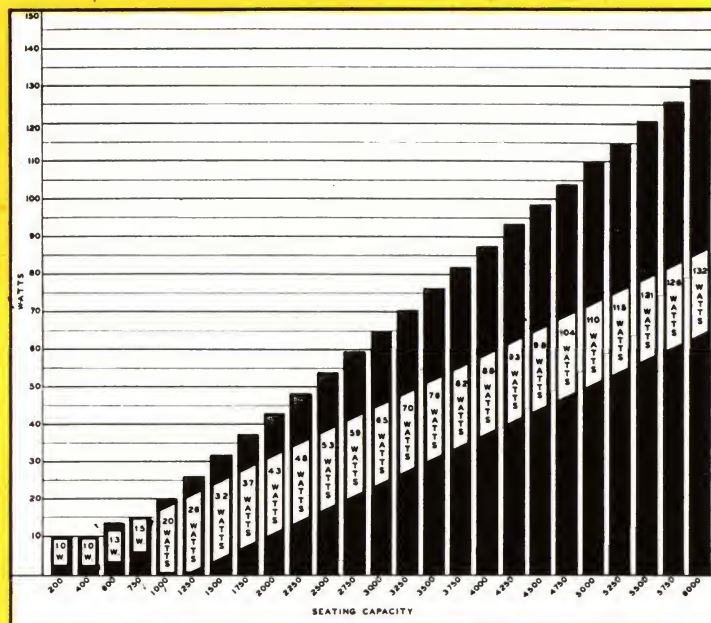
T H E A L T E C L A N S I N G S P E A K E R . . . *The Voice of the Theatre*

ADAPTABLE FOR IMPROVEMENTS TO EXISTING SYSTEMS
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HOW TO SELECT

HERE'S HOW TO SELECT THE PROPER *Voice of the Theatre* FOR YOUR HOUSE

To assure yourself of deluxe presentations, and that your Voice of the Theatre has sufficient capacity of the proper character for immediate utilization of new developments now being planned for the future, the following data is provided as a guide for proper selection of the right type and size Voice of the Theatre for your house. This data is based on actual performance tests which have been made in many and varied size houses over a period of many months. The Research Council of the Academy of Motion Picture Arts and Sciences' recommendations, not yet revised, are presented for comparison of present day operating standards with the deluxe presentation to be enjoyed with The Voice of the Theatre. Deluxe presentation recommendations are based on type and size of speaker necessary for proper utilization of power and wide frequency range in relation to size of auditorium.



ACADEMY RESEARCH COUNCIL MINIMUM POWER REQUIREMENTS FOR THEATRES
MINIMUM RECOMMENDED AMPLIFIER OUTPUT BASED UPON SEATING CAPACITY OF THE AUDITORIUM
THEATRE-SOUND STANDARDIZATION COMMITTEE
RESEARCH COUNCIL — ACADEMY OF MOTION PICTURE ARTS AND SCIENCES
HOLLYWOOD, CALIFORNIA

DELUXE PRESENTATIONS VERSUS COMMERCIAL PERFORMANCE

The column "Commercial Performance" (based on power alone) barely meets the operating *minimums* established by the Academy Research Council a number of years ago. It should be used for selection only when price is the controlling factor and where the theatre management understands that changes in the Industry standards will probably require future replacement or enlargement. Unfortunately, many sound systems are sold on the basis of barely commercial performance rather than in preparation for adequate deluxe presentation.

DELUXE SELECTION CHART

| NO. OF SEATS | Commercial Performance when based on Power alone and controlled by Price. | ★ DELUXE PRESENTATIONS |
|--------------|---|---------------------------|
| up to 750 | A6 | A5 |
| 1200 | A6 or A5 | A4 |
| 1800 | A5 | A2 |
| 2800 | A4 | A2 |
| 3500 | A2 | A2-X or A1 |
| 5500 | A2 | A1-X or A2-X |
| 7000 | A2 | A1-X |

★ Deluxe Presentation is based on factors of POWER CAPACITY plus speaker EFFICIENCY plus FREQUENCY RANGE plus DISTRIBUTION capability as well as the CORRECT PHYSICAL PROPORTION in relation to the size of the Auditorium. For details of Deluxe Presentation refer to Page 6.

THE ALTEC LANSING SPEAKER... *The Voice of the Theatre*

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The Voice of the Theatre SPECIFICATIONS

| Model | No. of Low Frequency Speakers | No. of High Frequency Speakers | High Frequency Horns | | | Overall Dimensions in inches (Including Wings) | | | Approx. Shipping Weight Complete (lbs.) |
|-------|-------------------------------|--------------------------------|--------------------------------|----------------------------------|----------|--|-------|-------|---|
| | | | Angle of Vertical Distribution | Angle of Horizontal Distribution | Code No. | Height | Width | Depth | |
| A1-X | 6 | 4 | 60° | 125° | 1804 | 126½ | 126 | 46½ | 2300 |
| | | | 60° | 105° | 1504 | 126½ | 126 | 46½ | |
| | | | 40° | 110° | 1004 | 118½ | 126 | 46½ | |
| A1 | 6 | 2 | 60° | 100° | 1505 | 121½ | 126 | 46½ | 2200 |
| | | | 40° | 100° | 1005 | 115½ | 126 | 46½ | |
| A2-X | 4 | 4 | 60° | 125° | 1804 | 113 | 113 | 39½ | 1500 |
| | | | 60° | 105° | 1504 | 113 | 113 | 39½ | |
| | | | 40° | 110° | 1004 | 105 | 113 | 39½ | |
| A2 | 4 | 2 | 60° | 100° | 1505 | 108½ | 113 | 39½ | 1300 |
| | | | 40° | 100° | 1005 | 102½ | 113 | 39½ | |
| A4-X | 2 | 2 | 60° | 100° | 1505 | 108½ | 80½ | 39½ | 825 |
| | | | 40° | 100° | 1005 | 102½ | 80½ | 39½ | |
| A4 | 2 | 1 | 60° | 100° | 1505 | 108½ | 80½ | 39½ | 800 |
| | | | 40° | 100° | 1005 | 102½ | 80½ | 39½ | |
| | | | 40° | 80° | 805 | 102½ | 80½ | 39½ | |
| A5 | 1 | 1 | 60° | 100° | 1505 | 108½ | 73½ | 35½ | 550 |
| | | | 40° | 100° | 1005 | 102½ | 73½ | 35½ | |
| | | | 40° | 80° | 805 | 102½ | 73½ | 35½ | |
| A6 | Special | Special | 40° | 60° | Special | 108 | 49½ | 35½ | 425 |

It is sometimes desirable to install new loudspeakers before more adequate amplifier power is obtainable. The design of the various Voice of the Theatre models assures increased quality reproduction from present available amplifiers which is further enhanced at the time greater amplifier power is installed. This permits immediate installation of

the proper size Voice of the Theatre which your Theatre will require now and *in the future*.




FOR PROPER SAFETY FACTOR DO NOT INSTALL
AMPLIFIER POWER IN EXCESS OF THE FOLLOWING:

| A1-X | A1 | A2-X | A2 | A4-X | A4 | A5 | A6 |
|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|
| 200 Watts | 100 Watts | 150 Watts | 80 Watts | 60 Watts | 40 Watts | 30 Watts | 20 Watts |

THE ALTEC LANSING SPEAKER . . . *The Voice of the Theatre*

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THE VOICE OF THE THEATRE

SUPPLIED AS ORIGINAL EQUIPMENT WITH BETTER SOUND SYSTEMS.
ADAPTABLE FOR IMPROVEMENTS TO EXISTING SYSTEMS.

MAJOR STUDIOS
NOW EQUIPPED WITH

The Voice of the Theatre

For years, Altec Lansing speakers have been the standard of high quality sound in the motion picture studios. Now, with the new Voice of the Theatre installed in the major studios, even higher quality sound is being recorded. With the Voice of the Theatre, you can present motion pictures to your audiences with the same faithfulness of sound reproduction which the studios use in recording and previewing the film. Greater listening pleasure for your patrons means more profits for you.

AVAILABLE NOW FROM YOUR

- THEATRE SUPPLY DEALER
- SOUND SYSTEM MANUFACTURER
- ALTEC REPRESENTATIVE



ALTEC



LANSING CORPORATION

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250 WEST 57 STREET • NEW YORK 19, N. Y.
IN CANADA: NORTHERN ELECTRIC COMPANY

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